



## **FISCAL YEAR 2010 APPROPRIATIONS REQUEST**

### **U.S. ARMY CORPS OF ENGINEERS**

#### **Locks and Dams 2, 3, and 4, Monongahela River**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$92,886,000

**Project Description:** These locks and dams are the last of the old and undersized locks on the Monongahela River system and are nearly a century old and structurally unstable. The Lower Monongahela project will replace the fixed crest Braddock Lock and Dam with a gated dam, remove Lock and Dam 3 at Elizabeth, PA, and construct two new larger locks at Lock and Dam 4 in Charleroi, PA. There is a substantial chance that important structural components of these facilities could fail at any time which could devastate waterborne supplies to communities and vital industries, as well as stall commerce through the Port of Pittsburgh. The continued viability of the Lower Monongahela River navigation system is vital to southwestern Pennsylvania's economy, as nearly 218,000 jobs are dependent on the river transportation system in this region. This project will provide reliable and safe navigation of the Lower Monongahela River for the next 100 years.

#### **Delaware River Main Channel Deepening**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$58,835,000

**Project Description:** This project calls for deepening the existing Delaware River Federal Navigation Channel from 40 to 45 feet from Philadelphia Harbor, PA and Beckett Street Terminal, Camden, NJ to the mouth of the Delaware Bay. Dredged material will be placed in hydraulic and hopper dredges in existing Federal confined upland disposal areas in the Delaware River portion of the project and for beneficial uses in Delaware Bay. Since fiscal year 1999, Congress has appropriated funds for project construction. The Project Partnership Agreement was executed on June 23, 2008, and the project is preparing to start construction. The existing 40 foot deep channel restricts the efficient movement of tankers, dry bulk carriers, and container vessels through the ports along the Delaware River. These conditions now result in significant light loading and lightening costs, as well as vessel delays. The 45 foot deepening project will result in transportation savings to commodities consisting of crude oil imports, iron ore imports, container ship movements and scrap exports. This project is indispensable if the Delaware Valley region is to compete with other deep-water port regions. Thousands of jobs and billions of dollars are at stake.

**Emsworth Locks and Dam, Ohio River**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$25,000,000

**Project Description:** The Emsworth Dam, the oldest of the 20 locks and dams on the Ohio River system, is currently in a state of failure. The rehabilitation project is updating the structural components of the dam to ensure continued navigational capability on the Ohio River. This project includes replacement of the dam gates, gate hoisting machinery, emergency bulkheads, emergency bulkhead hoists, electrical power and distribution system, and scour protection system. If the Emsworth pool is lost, two major facilities dependent on river transportation will be impacted, the US Steel Clairton Works, the largest coke plant in the United States and the Bailey/Enslow Fork Complex owned by Consol Energy, the largest underground coal mine in the United States.

**Upper Ohio River Navigation Study**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$2,600,000

**Project Description:** This study will investigate opportunities for maintaining and improving commercial navigation on the upper Ohio River in Pennsylvania and will evaluate the potential for integrating ecosystem restoration features into long-range plans for the river basin. The main locks at the Emsworth, Dashields and Montgomery Locks and Dams on the Upper Ohio River in western Pennsylvania are significantly smaller than all other locks on the Ohio River, acting as a traffic choke point and causing carriers to incur extra costs to double lock through the gates. In addition, these structures are all over 70 years old and exhibit signs of structural deficiency. A failure of these structures would severely affect the economy of western Pennsylvania, as over 20 million tons of cargo pass through these locks.

**Stillwater Lake Dam, Monroe County**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$1,500,000

**Project Description:** This project involves engineering, design and construction of repairs to the Stillwater Lake Dam in Monroe County, Pennsylvania. The dam has been classified as “high hazard” by the State Department of Environmental Protection and needs repairs both to support recreational activities at the lake and to protect over 3,000 downstream residents. Stillwater Lake is used for education and recreation by the Boy Scouts of America, a resource for local fisherman and a habitat for wildlife. If the dam is unable to be repaired, the dam will be breached, the lake will be drained and the property will likely be sold and developed, depriving the public and the Boy Scouts of this valuable resource. This project was authorized by Sections 1006 and 5003 of WRDA 2007.

**Wyoming Valley Levee Raising and Solomon Creek Flood Protection**

**Recipient:** U.S. Army Corps of Engineers – Baltimore, MD

**Location:** Luzerne County, PA

**Amount Requested:** \$16,500,000

**Project Description:** The Wyoming Valley Flood Control Project was designed to avoid a recurrence of the devastation caused to this area by the floods associated with Tropical Storm Agnes in 1972, which caused an estimated \$1 billion worth of damage. This project is located on the Susquehanna River in Luzerne County, PA, and consists of four contiguous flood control projects that function as one large system. With sufficient funding, the project will also begin to incorporate flood protection for Solomon Creek as a component of this initiative, as authorized by Section 3142 of WRDA 2007.

### **Bloomsburg Area Flood Damage Reduction Project**

**Recipient:** U.S. Army Corps of Engineers - Baltimore, MD

**Location:** Bloomsburg, PA

**Amount Requested:** \$375,000

**Project Description:** These funds will be used for preliminary engineering and design of a flood protection project for the town of Bloomsburg, Pennsylvania. Bloomsburg is subject to severe flooding from both the Susquehanna River and Fishing Creek, which serve as the southern and northwestern boundary of the town, respectively. Bloomsburg has suffered 33 floods since 1900, including 4 since 1999 which caused significant damage to residential homes and businesses. Average annual flood damages are estimated to exceed \$4.5 million. The proposed floodwall will protect 550 residences, 2 major industrial facilities and over 30 businesses.

### **Presque Isle Shoreline Erosion Control**

**Recipient:** U.S. Army Corps of Engineers - Buffalo, NY

**Location:** Erie, PA

**Amount Requested:** \$1,500,000

**Project Description:** The shoreline erosion control project at Presque Isle State Park originally involved construction of 55 offshore breakwaters and placement of 560,000 tons of beach sand fill. Each year, approximately 55,000 tons of additional beach sand fill is needed to replace sand displaced by winter storms. The goal of the project is to minimize erosion and promote natural growth in an area of the peninsula known as Gull Point. The project is critical not only to Erie's tourism economy but to maintaining a habitat for an endangered species.

### **Southeast PA Flood Plain Management Services**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$300,000

**Project Description:** Funding will support an investigation of multiple flooding issues in Chester, Delaware, Philadelphia, Montgomery and Bucks Counties, PA. Identified problem areas will be investigated with new topographic, hydrologic and hydraulic data and modeled accordingly to provide assistance and advice to local governments.

**Beaver Creek Reservoir**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$2,900,000

**Project Description:** This funding will provide for design, plans and specifications, and construction activity related to the Beaver Creek Reservoir Project in Clarion County, PA, as authorized by Section 5158 of WRDA 2007. This project will allow for extended water service in Clarion County and also identify a secondary source when the primary source is affected by sediment from the Clarion River.

**Fairless Hills Turning Basin**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$965,000

**Project Description:** This project involves deepening the Fairless Hills Turning Basin from 35 to 40 feet. Severe flooding events in September 2004 and June 2006 deposited large amounts of sediment in this turning basin, blocking off access to the Port of Bucks and threatening 200 jobs which depend on its navigability. Emergency actions were required to respond to both events, and while the port is open today, I am advised that ships can only access the port at high tide. Deepening the turning basin from 35 to 40 feet will allow for more efficient navigation in this channel and reduce the risk of future blockages.

**Delaware River Dredge Material Utilization**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$181,000

**Project Description:** This study will explore beneficial uses of dredged material from the Delaware River, including the transfer, transport, drying and re-handling of dredged material as it relates to watershed management, ecosystem restoration, navigation, water quality, abandoned mine reclamation and cover material for landfills.

**Allegheny River Pools 2 and 3 Habitat Restoration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$100,000

**Project Description:** Funding would allow the U.S. Army Corps of Engineers to analyze the economic and environmental feasibility of restoring aquatic ecosystems in the lower reaches of the Allegheny River, which serves as the headwaters of the entire Ohio River system. Improving ecological attributes in this area, therefore, could offer positive benefits for the entire Upper Ohio River basin.

**Lackawanna River at Scranton, PA**

**Recipient:** U.S. Army Corps of Engineers - Baltimore, MD

**Location:** Scranton, PA

**Amount Requested:** \$2,300,000

**Project Description:** This project provides 100-year level flood protection for the city of Scranton, Pennsylvania. The initial portion of the project was completed and turned over to the city of Scranton in 2003. However, land acquisition difficulties have created delays in constructing the remaining portions. These delays have increased the overall cost of the project and necessitated the provision of additional federal funds.

#### **Delaware River, Philadelphia to the Sea**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$22,695,000

**Project Description:** This maintenance dredging project is vital to ensuring that commercial and military vessels have reliable and efficient access to Delaware River ports. This project maintains a 96.5 mile channel from Allegheny Avenue in Philadelphia, PA, to the Delaware Bay. Delaware River ports handle 38 million metric tons of cargo per year at a total value of \$14 billion, amounts which rank second and eighth in the nation, respectively.

#### **Delaware River, Philadelphia to Trenton**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$15,715,000

**Project Description:** This maintenance dredging project ensures the continued navigability of the upper reaches of the Delaware River. Recent flooding events in the upper Delaware have underscored the need to maintain this channel, as flooding events in June 2006 imposed draft restrictions which severely limited commercial access to the Port of Bucks, the nation's sixth largest steel port.

#### **Schuylkill River**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$9,725,000

**Project Description:** This maintenance dredging project provides for a 6.5 mile 33-foot deep channel on the Schuylkill River from its confluence with the Delaware River to the University Avenue Bridge. This river supports the safe navigation of petroleum and chemical products and its maintenance ensures an acceptable level of navigation service. This project also supports the import of high value products and supports several thousand jobs in the local community.

#### **Ingham Spring Dam/Lake Restoration**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$250,000

**Project Description:** Funding will be used to conduct a study of the Ingham Spring Dam in Solebury Township, PA. Restoration of this dam will improve safety, natural ecosystems and public recreational opportunities. The PA Department of Environmental Protection has conducted annual inspections of the dam and found several deficiencies. The project was authorized by Section 1006 of WRDA 2007.

### **Sunbury Riverfront Stabilization**

**Recipient:** U.S. Army Corps of Engineers - Baltimore, MD

**Location:** Sunbury, PA

**Amount Requested:** \$2,000,000

**Project Description:** Funds will be used for bank stabilization, infill and repair of a Works Progress Administration-era wall that protects the city of Sunbury's main flood wall. Erosion on the shoreline of the Susquehanna River currently puts the city of Sunbury's protection system at risk. Bank stabilization will preserve the long-term integrity of Sunbury's flood wall and ensure the continued protection of Sunbury's 10,000 residents.

### **Schuylkill River Basin, Manayunk Canal**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$11,000,000

**Project Description:** Fiscal year 2010 funds will be used to confirm design completed by the sponsor, ensure compliance with the National Environmental Policy Act and award the construction contract for the restoration the Historic Manayunk Canal to its original navigable and completely functional condition with the intent on improving environmental conditions, flood control capabilities and ecological benefits.

### **Allegheny River Locks and Dams**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$33,829,000

**Project Description:** This funding will allow for the continued operation and maintenance of the navigation system on the Allegheny River. An economic impact study found that the river system in southwest PA supports 45,000 direct jobs and 218,000 total jobs, contributing to the economic well-being of the state as a whole.

### **Monongahela River Locks and Dams**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$32,110,000

**Project Description:** This funding will allow for the continued operation and maintenance of the navigation system on the Monongahela River. Approximately 15 percent of the nation's steel production relies on the coke produced at facilities along this river. An economic impact study found that the river system in southwest PA supports 45,000 direct jobs and 218,000 total jobs, contributing to the economic well-being of the state as a whole.

#### **Ohio River Locks and Dams**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$49,642,000

**Project Description:** This funding will allow for the continued operation and maintenance of the navigation system on the Ohio River. An economic impact study found that the river system in southwest PA supports 45,000 direct jobs and 218,000 total jobs, contributing to the economic well-being of the state as a whole.

#### **Upper Ohio River and Tributaries Technology Pilot Program**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$3,100,000

**Project Description:** This project was first authorized in the Water Resources Development Act (WRDA) of 2007. It would allow the U.S. Army Corps of Engineers to work with the Port of Pittsburgh Commission and the American Waterways Operators to evaluate how U.S. Army Corps of Engineers may use new technologies to improve the safety and efficiency of the inland navigation system. This project can make the inland navigation system safer and more efficient using relatively inexpensive non-structural, technological innovations.

#### **Turtle Creek Watershed Assessment**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Pittsburgh, PA

**Amount Requested:** \$100,000

**Project Description:** Requested funding will allow the U.S. Army Corps of Engineers to study the relationships among downstream stormwater-related problems and their upstream sources – with an eye towards the best options for upstream solutions. Coupled with on-going, comprehensive, regional stormwater management study and planning, performing the study will eliminate duplication of efforts and maximize protections to existing U.S. Army Corps of Engineers projects.

#### **Schuylkill River Basin, Wissahickon Creek Watershed**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia and Montgomery Counties, PA

**Amount Requested:** \$168,000

**Project Description:** The lower Wissahickon Creek became urbanized in the late 19<sup>th</sup> century and the upper portion in the latter half of the 20<sup>th</sup> century. A Reconnaissance Study was completed in August 2002. The Reconnaissance Report identified impaired areas of the watershed and potential solutions for each, including but not limited to, ecosystem restoration, fish and wildlife habitat restoration, flood damage reduction, and allied purposes. Based on this study, it was determined that the primary problems within the Wissahickon watershed include stream flow variability, poor quality aquatic habitat, aquatic habitat degradation, flooding, and overall ecosystem imbalances. Various solutions to address these problems exist, and will be considered in depth during feasibility investigations.

#### **Delaware River Basin, Pine Knot**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Schuylkill County, PA

**Amount Requested:** \$300,000

**Project Description:** The Southern Anthracite Region was the subject of considerable degradation in the 19<sup>th</sup> and early 20<sup>th</sup> centuries, providing power to the eastern United States to fuel the country's industrial development. This study will explore the feasibility of potential solutions for watershed restoration, ecosystem restoration, fish and wildlife habitat restoration and allied purposes.

#### **Philadelphia Navy Yard Seawall Reconstruction**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$500,000

**Project Description:** This project will rehabilitate the entire seawall bordering the Philadelphia Navy Yard, will spur economic development, and will contribute to the success of the Navy's missions at the Yard. Federal funding for this project is appropriate because the causeway was initially constructed and owned by the Navy. As the Navy Yard was closed down over four Base Closure rounds from 1988 to 1995, the federal government stopped investing in the maintenance and renewal of the existing infrastructure and the responsibility was passed on to the city and Philadelphia Industrial Development Corporation.

#### **Hopper Dredge McFarland**

**Recipient:** U.S. Army Corps of Engineers

**Location:** Philadelphia, PA

**Amount Requested:** \$12,000,000

**Project Description:** One of four oceangoing hopper dredges owned and operated by the U.S. Army Corps of Engineers as its "minimum fleet" for national security, the McFarland is the only dredge in the world with triple capability for direct pumpout, bottom discharge and sidecasting or boom discharge. The McFarland has a twofold mission 1) emergency and national defense dredging, and 2) planned dredging in the Delaware River and Bay, as well as along the East and Gulf Coasts. The McFarland offers a degree of performance and flexibility unmatched by any other dredge; it can handle a variety of materials including



silt, sand, clay, shell and mixtures. Funding will be used to maintain the McFarland in a ready reserve status.

## **U.S. DEPARTMENT OF ENERGY**

**Recipient:** Carnegie Mellon

**Location:** 300 South Craig Street, Pittsburgh, PA 15213

**Amount Requested:** \$1,000,000

**Project Description:** The computational energy sciences program allows researchers to conduct computer-based experiments to make initial assessments of proposed coal technologies rather than undertaking more expensive laboratory experiments. Funding for this project will help advance the nation's energy independence by enabling use of the highest quality computational simulation resources available.

**Recipient:** City of Allentown

**Location:** City Hall, 435 Hamilton Street, Allentown, PA 18101

**Amount:** \$5,000,000

**Project Description:** I urge the Subcommittee to provide funding for research into technology that will convert, with minimal manipulation, solid, liquid or gas polluting residues and waste into an energy source. Based on Perfect Catalytic Thermal Oxidation Technology, the solution recycles the energy contained in solid waste using it as high value added fuel to generate large amounts of clean electrical and thermal energy. Funding will be used for research and development to demonstrate and test a novel approach to municipal waste combustion for electricity generating purposes. This a valuable use of taxpayer funds because technological developments in this area will lead to electricity generation from waste that would otherwise be sent to landfills.

## **OFFICE OF FOSSIL ENERGY**

**Recipient:** Siemens Energy, Inc.

**Location:** 1310 Beulah Road, Pittsburgh, PA 15235

**Amount Requested:** \$2,000,000

**Project Description:** This funding would support development, construction, and testing of the fuel processing system(s) necessary to enable the operation of Solid Oxide Fuel Cells (SOFC) power systems on a variety of alternative and renewable fuels, such as propane, gas from anaerobic digesters at waste water treatment facilities, biogas derived from agricultural waste and landfills, coal-bed methane, and hydrogen. The project is a collaborative effort between Siemens Stationary Fuel Cells in Pittsburgh, Pennsylvania, and Pennsylvania State University, which will focus on necessary research and

development. By enabling SOFC power systems to operate on alternative and renewable fuels, this program reduces our dependence and reliance on foreign fossil fuels, enhances energy security, produces electricity with near zero emissions, and will broaden applicability of SOFCs and stimulate market acceptance.

**OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY (EERE)**

**Recipient:** Chestnut Hill College

**Location:** 9601 Germantown Avenue, Philadelphia, PA 19118

**Amount Requested:** \$900,000

**Project Description:** I urge the Subcommittee to provide funding for the Integrated Energy Management and Efficiencies System at Chestnut Hill College. Funding will be used to promote the college's comprehensive energy efficiency plan, which will result in lower energy use and annual energy savings for the college. The college's energy efficiency plan will serve as a national model for green campus efforts.

**Recipient:** Electric Power Research Institute

**Location:** 3420 Hillview Avenue, Palo Alto, California, 94304. Silicon Power located in Malvern, PA, is a partner on this project.

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for the Ultra Fast Power Processor for Smart Grid technology being developed at by the Electric Power Research Institute. Funding will be used to design and develop Silicon Carbide modules for Smart Grid and other electric power applications in Malvern, Pennsylvania. The use of Silicon Carbide in power operations has the potential to create power devices of incredible capability that will improve the efficiency of smart grid distribution systems.

**Recipient:** West Chester University

**Location:** Filano Hall, Room 101, West Chester, PA 19383

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for West Chester University's Designing and Implementing Geothermal Energy Systems program. This program will utilize funds to design and construct a geothermal heating and cooling system at West Chester University. West Chester University is among the first colleges in the nation to make a commitment to transfer all campus facilities from traditional energy sources to geothermal heating and cooling. This change will significantly decrease the institution's carbon footprint and serve as a national model for green campus efforts.

**Recipient:** East Penn Manufacturing

**Location:** Deka Road, Lyon Station, PA

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for the design, testing, and fabrication of a new, advanced lead acid battery energy storage technology that could be used to balance the

fluctuating generation of electricity in current wind and solar power systems. This technology would produce larger, safer, cleaner, and more affordable energy storage options than are currently available. This project, conducted by East Penn Manufacturing in Berks County, Pennsylvania, with Sandia National Laboratories and the Bonneville Power Administration, will lead to a new advanced lead acid battery that will serve as longer lasting, cleaner, more affordable, American-made solution to the load leveling challenge plaguing several current renewable energy systems. Development of such a power storage source will enable renewable energy systems, such as wind and solar, to competitively operate and grow in Pennsylvania and the rest of the United States, thus benefitting the transition to renewable power generation.

**Recipient:** Ben Franklin Technology Partners

**Location:** 1010 North Seventh Street, #307, Harrisburg, PA 17102

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for the Alternative and Clean Energy Technology Commercialization Initiative. This project allows Ben Franklin Technology Partners (BFTP) to help small enterprises develop and commercialize clean and alternative energy technologies. For twenty five years Ben Franklin Technology Partners has served the needs of Pennsylvania's highly skilled entrepreneurs and has a tremendous record of success and return on investment. Funding will allow BFTP to assist a larger number of small companies focused on accelerating and growing Pennsylvania's clean-tech industry. In 2008, the United States Department of Commerce selected BFTP for the Excellence in Economic Development Award for Technology-led Economic Development.

**Recipient:** Beaver County Economic Development Council

**Location:** 250 Insurance Street, Suite 300, Beaver, PA 15009

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for the Beaver County Economic Development Corporation for a demonstration program to test the feasibility of creating building brick from industrial waste; namely fly ash, a byproduct of coal burning, which would otherwise end up at an industrial waste site. The process for creating bricks from fly ash uses 70% less energy than the current process by which concrete bricks are made. Furthermore, as the price of the raw materials for fly ash bricks is minimal, they can be sold for far less than conventional concrete bricks.

**Recipient:** Beaver County Economic Development Council

**Location:** 250 Insurance Street, Suite 300, Beaver, PA, 15009

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding to purchase equipment for a demonstration plant aimed at producing high purity magnetite, which can then be used to remove harmful toxins from the coal burning process. This project will lead to job creation in western, Pennsylvania while cleaning up a dirty industrial process.

**Recipient:** Thar Process, Inc.

**Location:** 730 William Pitt Way, Pittsburgh, PA 15238

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for Thar Process' High Energy Turbine for Alternative Energy program. This funding would be used to build and demonstrate an alternative energy prototype that will verify the feasibility of low cost solar power. This is a valuable use of taxpayer funding because it would help develop a new source of energy and meet the country's energy needs.

### **EERE Electricity Delivery and Energy Reliability**

**Recipient:** Innovation Works

**Location:** 2000 Technology Drive, Pittsburgh, PA, 15219

**Amount Requested:** \$1,500,000

**Project Description:** I urge the Subcommittee to provide funding for the National Energy Innovation Center. The center will help assess commercialization opportunities for the National Energy Technology Laboratory's intellectual property, and will assist in finding appropriate commercial partners to further develop the technology. Congress should provide funding for this project so that crucial projects that have been researched and developed by the National Energy Technology lab can reach their full commercial potential.

### **EERE Solar**

**Recipient:** 44 Tech, Inc.

**Location:** 5000 Forbes Avenue, Pittsburgh, PA 15213

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for this project that will support research into battery technology for electricity storage. The Stationary Energy Storage Using Inexpensive Ubiquitous Materials project will be used to pursue a cost-effective stationary energy storage system. Development of a national "smart grid" is a central component of the Administration's energy plan. Additionally the Administration supports a plan to produce 25% of our nation's electricity from renewable energy by 2025. Successful commercialization of energy storage technology will be critical to the implementation of a national "smart grid," and will allow intermittent solar and wind energy to be a larger part of our nation's energy mix.

**Recipient:** Innova Materials

**Location:** 3624 Market Street, Suite 5E, Philadelphia, PA, 19104

**Amount Requested:** \$1,894,800

**Project Description:** I urge the Subcommittee to provide funding for Innova Material's Innlay technology project. Innlay is a technology, developed by the University of Pennsylvania's nanotechnology program, that modifies the polymers which are the building blocks of plastics. These

modifications can result in additional functionality. By modifying the polymers used in solar cell applications, Inlay technology can greatly enhance their mechanical, electric and optical qualities, ultimately resulting in a cheaper, more powerful, and more efficient solar panel.

**Recipient:** CENTRIA

**Location:** 1005 Beaver Grade Road, Moon Township, PA, 15108

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for CENTRIA for the development of solar kits for federal buildings, schools, and public housing complexes. CENTRIA has vast experience as a green building product engineer. Their expertise, will lead to the development of a building integrated photovoltaic solar energy system which will provide both roofing and power-generation in a single product. Post construction installation of traditional solar panels is often structurally impossible or cost prohibitive. Funding will support CENTRIA's efforts to develop low-cost solar kits that can be added to existing structures, increasing their energy efficiency and reducing long-term energy costs.

**Recipient:** PPG Industries

**Location:** 4325 Rosanna Drive, Allison Park, PA, 15101

**Amount Requested:** \$3,000,000

**Project Description:** I urge the Subcommittee to provide funding for Low Cost Production of Thin-film Photovoltaic Cells. New materials and manufacturing processes are needed to reduce the cost of photovoltaic solar units to allow for widespread, efficient harvesting and use of solar energy. By utilizing PPG's extensive domestic glass and thin-film manufacturing assets and expertise, this project will enable low-cost manufacturing of solar cells. Thin-film coatings are used for solar control and thermal management. These technologies could be directly integrated into current manufacturing of thin-film photovoltaics. Thin-film photovoltaic stacks applied using these methods would produce a breakthrough in manufacturing technology that could reduce the cost of cells and increase their efficiency, making them more attractive to consumers.

## **OFFICE OF SCIENCE**

**Recipient:** University of Pittsburgh

**Location:** 4227 Fifth Avenue, Pittsburgh, PA, 15260

**Amount Requested:** \$2,000,000

**Project Description:** I urge the Subcommittee to provide funding for the University of Pittsburgh's Center for Energy. In 2007 Congress passed the Energy Independence and Security Act, which emphasized technological developments in the areas of renewable energy and efficiency. The American Recovery and Reinvestment Act, too, promotes advancements in the areas of renewable energy and efficiency. More research is needed to ensure these advancements occur. The University of Pittsburgh is poised to be a leader in this regard. Through a collaborative and multi-disciplinary approach, combining

the expertise of private industry and academia, the University of Pittsburgh's Center for Energy will address the nation's most pressing energy-related needs.

**Recipient:** Lehigh University

**Location:** 5 E. Packer Avenue, Whitaker 318, Bethlehem, PA, 18015

**Amount Requested:** \$2,000,000

**Project Description:** I urge the Subcommittee to provide funding for Lehigh University's proposed Energy Systems Engineering Institute. Funding will support a research and education program designed to spawn energy technology breakthroughs, while simultaneously training new talent for the energy systems workforce. This program will be Lehigh University-based, but will consist of a partnership with the Electric Power Research Institute and energy companies as a collaborative approach to addressing pressing energy questions.

**Recipient:** Susquehanna University

**Location:** 514 University Avenue, Selinsgrove, PA, 17870

**Amount Requested:** \$1,000,000

**Project Description:** I urge the Subcommittee to provide funding for Susquehanna University's science center. Funding will be used to provide equipment and instrumentation, which will support student learning, research and community initiatives. Of critical importance is providing new and updated equipment and instrumentation, transforming the way faculty members teach courses and the way students learn by allowing faculty to expand the types of hands-on experiences offered in the lab and in the field.

## **NATIONAL NUCLEAR SECURITY ADMINISTRATION**

**Recipient:** SCHOTT North America, Inc.

**Location:** 2451 Crystal Drive, Suite 450, Arlington, VA, 22202

**Amount Requested:** \$3,000,000

**Project Description:** I urge the Subcommittee to provide funding for SCHOTT North America's Exawatt Laser Development project. Funding for the proposed development activity will be allocated within the Inertial Confinement Fusion Campaign to develop the science and technology necessary for an Exawatt laser. The extreme high energy density produced by an Exawatt laser can enable novel approaches to controlled fusion energy generation. Additionally, the wide range of copious emitted particles (photons, electrons, neutrons, protons, heavy ions, elementary particles) produced by the laser would have multiple applications including the study of materials subjected to intense radiation fields, active interrogation for identifying WMD materials, and advanced cancer therapy.

## **ENVIRONMENTAL MANAGEMENT**

### **Defense Site Cleanup Technology Development and Deployment**

**Recipient:** NuVision Engineering

**Location:** 2403 Sydney St, Suite 700, Pittsburgh, PA, 15203

**Amount Requested:** \$5,000,000

**Project Description:** I urge the Subcommittee to provide funding for NuVision Engineering to continue providing technology to support the Memorandum of Understanding between the United States Department of Energy (DOE) and the United Kingdom Department of Trade and Industry for energy and environmental cleanup, such as waste management, decommissioning, renewable energy, energy efficiency and remote handling. This program has already resulted in the cleanup and deployments of more than 25 full-scale innovative clean-up technologies at sites around the United States, including Oak Ridge, Savannah River, Los Alamos, Idaho, Mound, West Valley and Hanford. The International Agreement has brought a new dimension to the DOE clean-up program and has been demonstrated to have accelerated the cleanup schedule and saved the DOE millions of dollars over the duration of these projects.

## **INDEPENDENT AGENCIES**

### **Mid-Atlantic River Basin Commissions**

**Recipient:** Mid-Atlantic River Basin Commissions (Susquehanna River Basin Commission, Delaware River Basin Commission, Interstate Commission on the Potomac River Basin)

**Location:** Harrisburg, PA (Susquehanna River Basin Commission), West Trenton, NJ (Delaware River Basin Commission), Rockville, MD (Interstate Commission on the Potomac River Basin)

**Amount Requested:** \$2,365,000 (\$1,000,000 for Susquehanna River Basin Commission, \$715,000 for Delaware River Basin Commission, \$650,000 for Interstate Commission on the Potomac River Basin)

**Project Description:** Funding is necessary to fulfill the federal government's obligation to provide an equitable share of funding for the three commissions, as authorized under each commission's compact and by Section 5019 of WRDA 2007. The commissions will use this funding to implement critically important water resource management projects and activities in the national interest, such as flood control and flood loss reduction, water supply reliability, habitat restoration, water quality improvement, water allocation, water monitoring and assessment, drought coordination and water resource planning.